Date: Thu, 12 Aug 93 04:30:02 PDT
From: Packet-Radio Mailing List and Newsgroup <packet-radio@ucsd.edu>
Errors-To: Packet-Radio-Errors@UCSD.Edu
Reply-To: Packet-Radio@UCSD.Edu
Precedence: Bulk
Subject: Packet-Radio Digest V93 #237
To: packet-radio

Packet-Radio Digest Thu, 12 Aug 93 Volume 93 : Issue 237

Today's Topics:

BayPac TNC's
Help: KPC3 & com2
HELP: Testing TCP/IP
Help with Packet and
Identifying bad AA N
Is it broadcasting?
Kantronics D4-10 Wanted!!!!
Laser technology for Shortwave!
Mac Packet program??
packet radio encryption
Small TNC?

Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu>
Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Packet-Radio Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 12 Aug 93 01:54:00 GMT
From: psinntp!newsserver.pixel.kodak.com!kodak!eastman!b56vxg.kodak.com!harding@uunet.uu.net
Subject: BayPac TNC's
To: packet-radio@ucsd.edu

In article <aXo48B1w165w@infopls.chi.il.us>, ice@infopls.chi.il.us (Greg Kaiser) writes...

>I'm looking at purchasing a BayPac TNC and was wondering if anyone has
>any comments on this TNC...Is it good? Is it worth the money? Any
>complaints?

In a word, GREAT. However, the BAYPAC BP-1 is *NOT* a TNC rather it is a Packet Modem. The TNC is the software that comes with it. BAYCOM is designed toward the INTEL PC (IBM GATEWAY et al) and works equally well on an i8088 @4MHz or an i486-DX/2-66. I've bought three so far 'cause when others see how neat it is they usually want one ASAP. Well worth the $50. The only problem I've had is not a BAYPAC issue but finding connectors which fit my ICOM-24AT *PROPERLY*: RADIO SHACK connectors seem to run large in one lot an small in others. I'm going to try a standard microphone connector onof these days when I find some spare time.

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   N 2 K Z J N 2 K Z J N 2 K Z J N 2 K Z J N 2 K Z J N 2 K Z J N 2 K Z J
   |      Jon Harding, N2KZJ email: harding%b56vxg.dnet@Kodak.COM      |
   |            * I don't represent KODAK by word or deed. *           |
   N 2 K Z J N 2 K Z J N 2 K Z J N 2 K Z J N 2 K Z J N 2 K Z J N 2 K Z J
```

Date: Thu, 05 Aug 1993 11:56:10 -0600
From: usc!cs.utexas.edu!oakhill!val!afarm!fredmail@network.ucsd.edu
Subject: Help: KPC3 & com2
To: packet-radio@ucsd.edu

-=> Quoting Daniel Senie to All <=-

DS> What is really needed in the market is a board that allows
DS> individual assignments
DS> of IRQ's 2,3,4,5,7,10,11,12,13,14,15 for EACH of 2 or 4
DS> serial ports. I have done
DS> a lot of searching and have come up empty. I may have to design one.

I have heard of the Twincom (Moonachie NJ, 800-666-2496) ACI/550 board, $70, which allegedly will let you use non-standard io port addresses and interrupts.

Also, the Hayes Microcomputer Products (Atlanta GA 404-840-9200) Communications Accelerator, $200-250, which has 2 16550 UARTS, 1024 byte buffers, and its own processor to allow DMA transfer. I believe it uses its own driver, avoiding the brain-damaged Windows comm driver limited to 19200 bps.

See PC Sources, April 93 for a nice discussion on configuring and speeding up serial comms.

And if you make a vary configurable high speed board at a reasonable cost, let me know!

Burt N5SYY

... Borg Institute of Technology, Assimilation Department
___ Blue Wave/QWK v2.12

Date: Thu, 05 Aug 1993 12:07:12 -0600
From: sdd.hp.com!elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!oakhill!val!afarm!
fredmail@network.ucsd.edu
Subject: HELP: Testing TCP/IP
To: packet-radio@ucsd.edu

-=> Quoting Andy Micone to All <=-

AM> From: Andy Micone <andym@inrird.com>
AM> Newsgroups: rec.radio.amateur.packet
AM> Organization: INRI Research & Development
AM> Date: Tue, 13 Jul 1993 20:49:18 GMT

AM> 1) I know there's KA9Q NOS for Unix boxes, but does anybody make a
AM> commercial version for Unix boxes that will achieve the same thing, or
AM> better with more features? Basically, we want to add AX.25 as just
AM> another network interface like a SLIP or PPP connection, and it would
AM> be a boon to just buy a supported package instead of compiling and
AM> debugging KA9Q.
AM> 2) We want to test this stuff in-house. Basically we would like to set
AM> up a few radio modems to communicate with some machines in the same
AM> room. Does anybody make a radio modem for short-range networking, and
AM> what's the policy regarding them (i.e., something where we don't have
AM> to deal with the FCC too much).

There are many TCP/IP packages, and at least 3 commercial radio-based
networks for DOS/UNIX. NCR Wave Lan comes to mind. Contact a
professional networking guy, or call Inmac or Black Box. These may
be slow compared to standard co-ax Ethernet, approx 2 Mbits/sec.
You should be able to do this with off-the-shelf boards, drivers,
etc., all designed to be installed and used by ordinary businesses.
Hence low/no FCC hassle.

Burt N5SYY

... "Good 'people skills' get the most from subordinates." - Darth Vader
___ Blue Wave/QWK v2.12

Date: Thu, 05 Aug 1993 11:36:08 -0600
From: usc!cs.utexas.edu!oakhill!val!afarm!fredmail@network.ucsd.edu
Subject: Help with Packet and
To: packet-radio@ucsd.edu

-=> Quoting Anderjh to All <=-

An> I am interested in getting a tnc soon but still don't know what to
An> look for after reading the faq. Specifically, what models are common,
An> and how much they cost. I am also thinking of trying to hook up a
An> Hewlett Packard 95LX to the tnc (1 meg version). Has anyone done this?
An> The HP95 is a palmtop computer running DOS 3.31. It has a serial port
An> and I have successfully hooked it up to a modem. I have a Kenwood
An> TH-28A HT. Is this radio acceptable
An> for packet? I am looking for my callsign any day now (took the
An> technician test on May 16).

An> Jamie Anderson (ANDERJH@DUCVAX.AUBURN.EDU)
I presume you want a small, low power consumption unit? I suggest the Kantronics Packet Communicator 3 (KPC3). The unit is appox. 5 inch by 5 inch by .75 inch. It uses 15-20 ma at 6-25 VDC. It uses a 25 pin serial port connector. I used a standard 9 pin to 25 pin modem cable and an MFJ KAM VHF to KENWOOD HT cable (MFJ-5026Y). This worked fine for both the Kenwood TH215A and my TH28A as well.

Consider getting a better, external antenna, perhaps a roll-up half wave. Or use a 5/8 wave on a car. Or even a small portable beam?

Burt N5SYY

... "Life is a series of rude awakenings." - Rip van Winkle
___ Blue Wave/QWK v2.12

Date: Thu, 05 Aug 1993 12:26:14 -0600
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!usc!cs.utexas.edu!oakhill!val!afarm!fredmail@network.ucsd.edu
Subject: Identifying bad AA N
To: packet-radio@ucsd.edu

-=> Quoting Bradley T Banko to All <=-

BTB> Is there an easy way to identify bad AA NiCad batteries?
BTB> (something that doesn't require any circuits other than a voltmeter?)

BTB> KB8CNE, Brad Banko

Bad ones wear black leather, have tattoos and hang out on street corners late at night. Good ones have pocket protectors, black framed glasses held together by tape, and a slide rule (okay calculator) hanging from their belt. Sorry.

73 Magazine has had a couple of recent articles on NiCad Zapper/Testers. Apparently, you charge them and use them. If they don't hold a charge, you zap them with high current to fry internal "whiskers" that tend to short them. THEN charge them and use them. You may have to do this a couple of times.

See 73 Amateur Radio Today:
    September 92 p. 24
    May 93 p. 68.

Burt, N5SYY

... "Wierd is a relative term, not an absolute." - Frank N. Furter
___ Blue Wave/QWK v2.12

Date: Thu, 05 Aug 1993 13:28:16 -0600
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!usc!cs.utexas.edu!oakhill!val!afarm!fredmail@network.ucsd.edu
Subject: Is it broadcasting?
To: packet-radio@ucsd.edu

-=> Quoting Kirk W. Fraser to All <=-

KWF> First, is such an application legal?

Maybe not, if you are doing it just to bypass a commercial communications facility.

KWF> Second, I know 1200 baud is packet max but under what conditions may

1200 bps is not packet max. Like many other things, it's a matter of money. How much speed do you want to pay for? 9600 bps is fairly common on UHF (450 MHz), but equipment costs are higher.

KWF> ``experiemental'' radio use higher baud? (The BBS has 14.4K)
KWF> Third, what equipment should I buy for both ends?

You need a high gain antenna, a good transceiver, a TNC w/ 9600bps packet modem, cables, packet software at each end. If there is no convenient digipeater, you may need a pair of UHF amps and/or towers to get good communications. Throw in some good co-ax, connectors, etc.

Perhaps $1000-1500 at each end, plus tower/amp as needed?
1200 bps is cheaper, $700/site?

N5SYY

... Relax. Don't worry. Have a home brew.
___ Blue Wave/QWK v2.12

Date: 11 Aug 93 21:15:22 EST
From: usc!howland.reston.ans.net!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!bgsuvax!uoft02.utoledo.edu!aschlie@network.ucsd.edu
Subject: Kantronics D4-10 Wanted!!!!
To: packet-radio@ucsd.edu

Hello,

I am looking for a Kantronic's D4-10 10 watt radio. Its for a high speed data link for the bbs I am putting up in Springfield, Ohio. Also, If anyone has a Ottawa PI controler card for the Kantronic D4-10 or a duel port controler made by Burcillous (I think that is how its spelled) for the radio.

If you have any of the above, call 513-325-3893 anytime and ask for Tony or Charles.

THanks!!!!

Tony N8XJA
Charles N8UAU

Date: Wed, 11 Aug 1993 22:54:47 GMT
From: usc!math.ohio-state.edu!darwin.sura.net!news-feed-2.peachnet.edu!emory!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: Laser technology for Shortwave!
To: packet-radio@ucsd.edu

In article <Expertek.1vjl@nesbbx.rain.COM> Expertek@nesbbx.rain.COM (Kirk W. Fraser) writes:
>Does anyone know about Pasers (if they exist)? I read Masers use the laser
>idea to generate microwaves. Pasers would then be for packets. :-)
>
>Seriously, I think this idea has merit. If shortwave radio could be
>generated in a coherent point to point beam, it could take advantage of
>bounce which microwaves can't, adding both security and distance to packet
>and other work. Not to mention the focussed beam would greatly reduce power
>requirements.
>
>Anyone with clues as to how to build such a gizmo please let me know.
>Thanks.

Well our normal amateur transmitters are coherent sources, at least they are if they are working properly, spark was outlawed a long time ago. Since they are coherent, the signals are capable of being focused into tight beams. All you need is an adequately large antenna. In the case of lasers, the mirrors and collimating lenses are the equivalent of our antennas. To get the tight beam of a laser, the "antenna" has to be several million wavelengths in diameter. That's only 6 inches at light frequencies, but it's a tad bigger down at HF.

Gary

```
--
Gary Coffman KE4ZV           |    You make it,     | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems |    we break it.     | uunet!rsiatl!ke4zv!gary
534 Shannon Way             |    Guaranteed!      | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244     |                     |
```

Date: 11 Aug 1993 23:53:54 GMT
From: usenet.coe.montana.edu!netnews.nwnet.net!news.uoregon.edu!
pcompton.uoregon.edu!user@decwrl.dec.com
Subject: Mac Packet program??
To: packet-radio@ucsd.edu

Hi,

I'm a packet newbie, so please excuse me if there's a FAQ somewhere that should tell me this . . .

Is there a Macintosh packet-control program that I could use with my PowerBook and new KPC-3? I'm using a terminal emultion program, which works OK, but I heard rumors that there's a packet-specific program out there somewhere which allows serparate streams in independent windows and "split screen" for convers mode. Seems ideal, but who/where does one contact?

Thanks, 73 & CUL,

```
Paul E. Compton                     | WA7NBS @ N7DXT.OR.USA.NOAM
Brain Electrophysiology Laboratory | Internet:  pcompton@hebb.uoregon.edu
Department of Psychology           | AppleLink: COGNEURO.UOR
University of Oregon               | Phone: 503.346.6300
Eugene, OR 97403-1227  U.S.A.      | FAX: 503.346.4911
```

Date: 11 Aug 1993 18:36:05 -0600
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!europa.eng.gtefsd.com!darwin.sura.net!news-feed-2.peachnet.edu!umn.edu!lynx.unm.edu!carina.unm.edu!news-user@network.ucsd.edu
Subject: packet radio encryption
To: packet-radio@ucsd.edu

Okay, Im not sure if this is the appropriate newsgroup to post to, but... What regulations are there in the U.S. about broadcasting encrypted message packets that cant be broken by the pigs, especially in communication with other countries? How strictly are they enforced? Are there ways around it (both legally and illegally)?

Thanks...

--
Mystik Homeboy- The high-on-acid CybErPreist of FRED The patron subgenius deity
  No Prob with "BoB" | of Albuquerque!   PGP public key available on Finger!
 Peace + @narchy = :-) | "Wanna French Fry?" -Fred
         .....Bringing the world One step closer to Apocalypse!.....

Date: Thu, 05 Aug 1993 15:41:00 -0600
From: usc!cs.utexas.edu!oakhill!val!afarm!fredmail@network.ucsd.edu
Subject: Small TNC?
To: packet-radio@ucsd.edu

-=> Quoting Trond Trondsen to All <=-

TT> I would like to go portable on packet and now I wonder what
TT> is the (physically)
TT> smallest TNC available? I will only need to be active on vhf/uhf.
TT> Power consumption is also an important factor.
TT> It seems to me that a tnc could be made extremely small...

Heath used to make a TNC that was ideal for packet, about the size of a box of 100 mm cigarettes. Gone now, I suppose.

Among more recent offerings, the Kantronics KPC3, about 5 x 5 x .75 inches. Apparently uses about 15ma at 6-25vDC. Costs about $120. Includes PackeTerm software (which runs well from floppy). You can turn off the LED displays if 15ma seems too high |-). I've been using a 9 volt alkaline battery for months. I may try the 6 volt lithium batteries from my wifes Polaroid camera. Got to be SOMETHING useful to do with 'em.

There is room for a 9v battery inn the case, though my power
jack seems not to allow my internal connection to work. So
use the provided plug and connect my battery externally.

Burt N5SYY

... Miskatonic University Alumni Association
___ Blue Wave/QWK v2.12

Date: Thu, 12 Aug 1993 02:31:31 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
darwin.sura.net!news-feed-2.peachnet.edu!concert!gatech!kd4nc!ke4zv!
gary@network.ucsd.edu
To: packet-radio@ucsd.edu

References <1993Aug6.143716.1@skyler.mavd.honeywell.com>,
<1993Aug11.121210.17465@ke4zv.uucp>,
<1993Aug11.160112.1@skyler.mavd.honeywell.com>atech
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: Packet Data Compression Questions

In article <1993Aug11.160112.1@skyler.mavd.honeywell.com>
estey@skyler.mavd.honeywell.com writes:
>These problems have been noted while using RLI and BPQ code. Can the "user"
>implement any of these "filters"? I have had recent strange scrambling of
>the hard drive (No, I'm not using DOS 6!) and yesterday when I came home I
>found CHKDSK/F partially involked and locked up. The only normal way for
>this to happen would be if a reboot caused it .... or if there had been an AC
>mains dump - and there wasn't. Could any HEX code flying by cause this -
>or am I chasing shadows?

I think you're chasing shadows. Do you have remote sysop functions
enabled? If you do, it's just barely possible that the random characters
you are monitoring hit your access code and then later generated a
reboot command. But that's extremely farfetched. I think you probably
have computer hardware problems.

Gary

```
--
Gary Coffman KE4ZV          |    You make it,     | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems |    we break it.     | uunet!rsiatl!ke4zv!gary
534 Shannon Way             |    Guaranteed!      | emory!kd4nc!ke4zv!gary
```

Lawrenceville, GA 30244 | |

End of Packet-Radio Digest V93 #237
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